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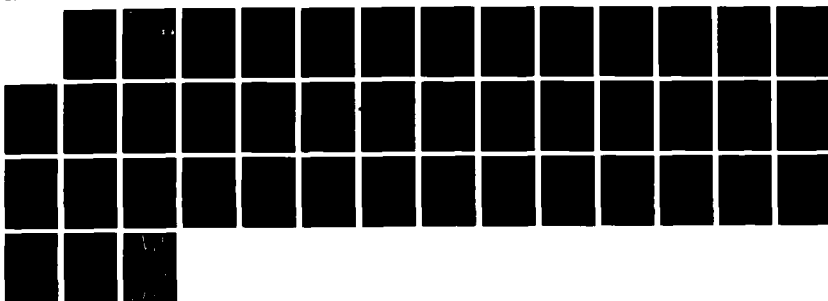
THE US ARMY AND NONLINEAR OPERATIONS: DOES TRAINING
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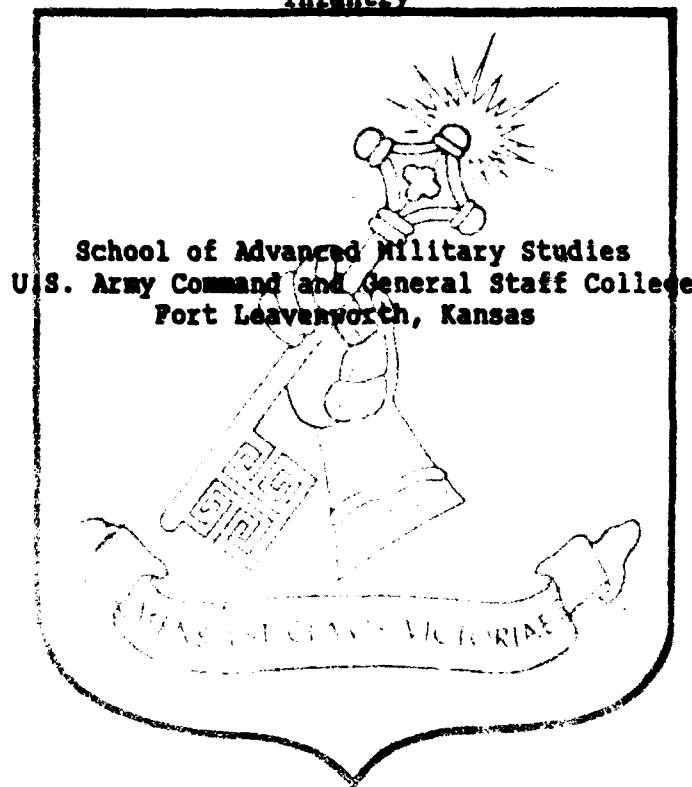
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The U.S. Army and Nonlinear Operations:
Does Training Match the Doctrine?

by

Major David H. Mannaux
Infantry



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**The U.S. Army and Nonlinear Operations:
Does Training Match the Doctrine?**

by

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8 December, 1986

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ABSTRACT

THE U.S. ARMY AND NONLINEAR OPERATIONS: DOES TRAINING MATCH THE DOCTRINE? by Major David H. Mamaux, USA, 31 pages.

This monograph analyzes that characteristic of the modern battlefield known as nonlinear operations, as defined in FM 100-5, Operations. The purpose is to determine if there is a firm linkage between U.S. Army doctrine and the training of U.S. soldiers and units to execute the doctrine.

The nonlinear operations conducted by the Soviets against the German Army in the Great Patriotic War are examined for Soviet doctrinal and experiential precursors to the current Soviet doctrine which is designed to force nonlinearity on an enemy so as to cause his collapse rapidly and throughout the depths of his defenses.

The conclusion is that while Army doctrine perceives the peril accurately, the training of our soldiers and units falls well below the standard required to counter the Soviets.

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THE U.S. ARMY AND NONLINEAR OPERATIONS:
DOES TRAINING MATCH THE DOCTRINE?

INTRODUCTION

"It is of first importance that the soldier, high or low, should not have to encounter in war things which, seen for the first time, set him in terror or perplexity."

Clausewitz¹

The lethality, scale of combat, duration of operations, and confusion expected on the modern battlefield in a NATO scenario will constitute a tremendous shock and challenge to the armies involved. This battlefield will duplicate some problems already experienced by the U.S. Army in World War II, Korea, and Viet Nam, but on a considerably higher order, and will create problems outside our Army's conventional experience.

One new characteristic of this modern battlefield has already been identified. It is derived from the Eastern Front experiences of the Wehrmacht and the Red Army, and from current Soviet doctrine and force structure. This characteristic of the battlefield is what FM 100-5 Operations names "nonlinear operations",² which means that during fluid offensive and defensive battles and

engagements, soldiers and units will be surrounded or bypassed by enemy units, or will themselves surround and bypass enemy units. Combat, combat support, and combat service support formations of both sides will be intermingled as both sides try to fracture the coherence of the opponent's plan and units. This perilous condition has serious implications for the Army and raises this question: Does the U.S. Army adequately train and psychologically condition its soldiers and units for operations on a nonlinear battlefield?

In examining this issue, this monograph will focus on the mid- to high-intensity battlefield expected to occur if NATO and the Warsaw Pact were to engage in combat in Central Europe. Given that no serious Western writer (and hopefully no serious Eastern Bloc writer, either) could present a scenario in which NATO aggressed across the Inner German or German-Czech frontiers, the orientation will be that of the U.S. Army fighting on the strategic and operational defensive against forces utilizing Soviet doctrine. While the Army has had relevant experience with nonlinear operations in small and limited wars (the Indian Wars on the Plains, Viet Nam), and Airland Battle doctrine is not restricted to a conventional war in Europe, the stated emphasis on the potential European battlefield will apply.

The authors of FM 100-5 used the term "nonlinear operations" to indicate the intermingling of opposing combat, combat support, and combat service support forces on

a battlefield. This and similar phrases are found in numerous articles and studies about the conventional battlefield of the future. Why has this term become part of the commonly accepted description of the modern battlefield? To answer this question, Soviet doctrine will be examined. Since much of Soviet doctrine is based on or supported by their successes and failures during the Great Patriotic War, examples which underscore the Soviet emphasis on the desirability of creating a nonlinear battlefield will be considered. Some of these examples will also convey what the impact of nonlinearity was on surrounded or bypassed Wehrmacht soldiers and units. The more important examples will answer these questions: What was the impact on the German soldier? How did he react to being bypassed or surrounded? How did his training help him to withstand the psychological shock of being attacked in supposedly secure rear areas? Was his training successfully modified so as to counter this shock? How did soldiers in German combat service support units react when facing Red tanks and infantry where German training and experience had not prepared them to expect an attack?

After examining Soviet doctrine and World War II examples of nonlinear operations, current U.S. Army doctrine will be reviewed to see if it addresses the situations depicted above. The training of Army soldiers and units will be reviewed, insofar as possible, to seek answers to these questions: Does the training reflect the doctrine?

Does the Army truly inculcate acceptance of the ramifications of nonlinear operations in its soldiers? What does the ARTEP system tell us about the emphasis on nonlinear operations? Answers and inferences should reveal the Army's readiness to conduct nonlinear operations in a conventional war fought in the near future.

SOVIET DOCTRINE

The Soviet doctrine writers and commentators whose works have surfaced in the West have rejected the concept of a linear battlefield familiar to those knowledgeable about Allied tactics in World War II. The Soviets believe that the deliberate creation of a nonlinear battlefield is a superb conventional tool for fracturing the integrity of an enemy's defense and moving through the enemy to attack deeper political and military objectives, thereby rapidly securing a Soviet victory. One American expert on Soviet military thought has made the point this way: The idea is "to shatter the defending force into isolated and disorganized groups to be bypassed in the process of achieving deeper objectives."³ FM 100-2-1, The Soviet Army: Operations and Tactics, has stated this tactical (and operational) principle as follows: "Attack the enemy violently and simultaneously throughout his depth. Carry

the battle to the enemy rear with swift penetrations by maneuver units, fires, aviation, airborne and heliborne assaults, and by unconventional means."⁴

The same section of the manual contains this other tactical principle: "Bypass enemy strongpoints to strike deeply into his rear."⁵ The intent of bypassing combat units is to avoid frontal attacks against linear defenses. Having witnessed in the Great Patriotic War the difference between battering against coherent linear defenses and destroying divisions by hitting their artillery lines and support units located to the rear, the Soviets have selected the latter tactic. They desire to cut the enemy's lines of communication (LOCs) and destroy or at least disrupt his command and control structure, so as to fragment the defensive system at minimum loss to themselves.

One prominent Soviet writer who has made crystal clear the Soviet view of the nonlinear characteristic of the modern battlefield is Colonel V. Savkin. In a 1972 article, written well before the U.S. Army began to come to grips with the concept of nonlinear operations in the 1982 version of FM 100-5, Savkin asserted:

The essence of an offensive...is the...rapid penetration into the depths of the enemy's defenses through breaches made in his combat formations and through unoccupied or poorly defended intervals in order to attack on the flank or rear. The combat actions are also characterized by uneven development on the front and in depth. ...the absence of a solid front now preclude[s] the even advance of the [battalions]....⁶

Having noted the Soviet doctrinal desire to force nonlinearity on the battlefield, Baxter attempted to portray modern combat as seen through Soviet eyes:

Combat will comprise a number of intense battles between separate forces...over a wide front and in confusing situations where there are no clearly defined front lines. Many actions are occurring simultaneously on the battlefield. The overall flow of the battle is the sum of many smaller engagements....Some forces are attacking.... Still other forces are pursuing defeated enemy groups, while some forces are temporarily on the defense.

The above description is an excellent theoretical summary of the Soviet view of combat between opponents with large mechanized armies and large air forces. The Soviets recognize that they will have reverses as well as success if and when they attack the essentially linear defenses of NATO. These successes, reverses, and delays would whipsaw linear defenses apart, and this would create coordination and security problems for the Soviets if they still clung to the outmoded tactics they employed in the first summer and fall of their four year war. But the Soviets have evolved tactics to cope with the nonlinear operations they expect to encounter. They therefore do not hesitate to confront the phenomenon of nonlinearity, but rather seek to create it so that it will be a combat multiplier for their offensive doctrine. The Soviets have reckoned intellectually, doctrinally, and in training, with the foreseeable consequences.

Since the Soviets desire to bypass units and drive to an enemy's rear, it follows that they will fight only when they must, i.e., to continue to move to the rear; and when they choose, i.e., when they encounter those targets, units, facilities, etc. they wish to destroy or capture. They do not desire to engage in unproductive slugfests with combat

forces. What are appropriate targets? The Soviets desire to make their attacks "on the enemy's combat, combat support, and combat service support capabilities to take away his initiative and freedom of maneuver."⁸ Soviet units would attempt to destroy or seize key road junctions, bridges, river crossing sites, air defense radars and weapons, artillery battalions, command posts, Ammunition Storage Points (ASPs), POL dumps, and airfields, and those weapons and sites associated with nuclear delivery assets. The Soviets learned the value of destroying or capturing similar targets in the Great Patriotic War.

THE WEHRMACHT VERSUS THE RED ARMY

Because the Red Army initially lacked the large armored and motorized forces and the tactical and operational skills necessary to force large-scale nonlinear operations on the Wehrmacht as doctrine required, the tools chosen to perform the task were horse cavalry raids, small armored and infantry raids, ski battalion forays (in winter), and partisan attacks. These forces attacked German units at unexpected times and locations behind the front lines, and greatly reduced the ability of the Wehrmacht to wage war in its preferred way. The brunt of the attacks fell on the CS and CSS units and facilities in the rear, on isolated

artillery units, and on the lines of communication (convoys, trains, engineer road units, and dispatch riders.)

The operations of the Soviet 20th Cavalry Division near Moscow in December 1941 are instructive: The Cossack battalions attacked a weak point in the linear defenses the Germans were trying to maintain, bypassed infantry strongpoints, attacked the flanks and rear of the German division, and cut it in two.⁹ The Soviets then began to attack their real objectives. They "made surprise attacks on headquarters and supply depots in the hinterland. They blocked roads, destroyed communications, blew up bridges and viaducts, and...raided supply columns and wiped them out. [They]...overran an artillery group...12 miles behind the front line."¹⁰ These attacks greatly reduced the combat power of the parent German corps: "The entire front of IX Corps now hung in the air. The forward positions of the divisions were intact, but their rearward communications had been cut off. Supplies of food and ammunition did not get through. And there were several thousand wounded in the forward fighting area."¹¹

This was not a unique incident. On 26 July 1941, the 78th Infantry Division was in bivouac when the division signal battalion telephoned the division HQ that it was under attack by rifle units. "Shortly thereafter...Red forces advanced to within 300 yards of the division command post, which received a direct hit. Headquarters personnel joined in the fighting. [An artillery battalion]...brought

the Russians under direct fire with its medium howitzers and halted the attack."¹² For obvious reasons, headquarters were a favorite target of Russian units which had fought or slipped their way past combat units and were fighting in the depths of German positions. In another example, "...the town was occupied only by division headquarters personnel, elements of the signal company, and an antitank company.... Eventually the Russians were repulsed but it had been necessary to throw even the clerks and telephone operators into the line."¹³

The partisans played a role in the conduct of nonlinear operations in Russia that cannot be overestimated. Their roles in the Soviet force structure have been assumed by agents, saboteurs, terrorists, and above all by airborne, airmobile and special purpose units (Spetsnaz-both GRU and KGB). The Soviets give great credit to their partisan forces, which were occasionally aided by airborne detachments parachuted in for training and command of operations. They claim for them the killing, wounding, or capturing of hundreds of thousands of enemy personnel, the derailment of 18,000 trains, and the reduction of German troops to a "constant state of fear."¹⁴ While the Germans might not wholly agree with this assessment, numerous German accounts, reports, and memoirs speak of the "front behind the front" which partisan units created in the German communications zone and between German units. "Partisan operations generally included mining main highways,

demolition of railroad tracks, mining railroad beds..., raids on trucks and convoys, and burning ration, ammunition, and fuel depots. Less frequent were raids on command posts of higher German headquarters."¹⁵ Partisan operations were often coordinated so as to complement conventional combat operations:

During a major German attack...a railroad that had to handle the supplies for three German armies...was so effectively disrupted that all traffic was stalled for several days. Such large-scale operations, carried out by small partisan teams and numerous individuals, at times seriously hampered the supply of the German troops.¹⁶

As the war progressed, the Soviets added mobile armored and mechanized striking groups for operations throughout the depths of the German area behind the linear front lines.

The impact of such Russian attacks on the Wehrmacht was felt in several ways. First, scarce resources and personnel were lost. Artillery units were overrun well behind the German FEBA (e.g., 12 miles and 16 miles)¹⁷. Signal units in "safe" rear areas were surrounded and destroyed.¹⁸ The LOCs supporting the front simply ceased to function at times when Soviet armored units bypassed German positions in drives to cut the latters' main supply routes.¹⁹

The second impact was the diversion of German combat units to defend CS and CSS units and the LOCs they used from Russian attack. "In the area of Army Group Center, for instance, there were 80,000 to 100,000 partisans who tied down a security force conservatively estimated at 100,000 men",²⁰ a staggering figure when applied to our NATO scenario. This reduced the combat power at the FEBA (FLOT),

but the Wehrmacht faced a dilemma we can appreciate today: On this unfamiliar nonlinear battleground, attacks in the rear were at least as perilous as attacks along the FEBA, and although the results were not couched in terms of numbers of destroyed tanks and annihilated regiments, they were nevertheless profound. "Any disruption of German rear communications anywhere in the vast expanse of occupied Russian territory was sure to have immediate effects which could be felt by virtually every German headquarters, indeed by every single unit."²¹ The Germans devoted more and more combat forces and repair efforts to their rear areas as the war lengthened. They were not able to solve the problem that operations behind and between their combat units and their support units presented.

The third impact was similar to the second, but it affected the CS and CSS units directly and the combat forces only indirectly, albeit severely. The paucity of combat forces and the prevalence of attacks throughout the depth of the German battle zone meant that CS and CSS units had to defend themselves. While these units were devoting men and vehicles to guard duty, local patrolling, convoy escort, repair party escort, and training for all of these combat-associated tasks, they suffered a reduction in their ability to resupply, maintain, service, and otherwise support the units at the front, whose combat power was thereby reduced in varying degrees.

The numerous repair parks and supply dumps were a particular problem, since "some of the larger installations might well assume the proportions of a medium-sized city."²² While the most common threat was a guerrilla attack, Russian armored attacks became steadily more frequent. The town of Klin suddenly became a frontline hotspot in December 1941 because of a Russian breakthrough. "Sappers, road-building details...Luftwaffe ground staff, workshop mechanics...[and] twenty-five drummers of the band"²³ fought as infantry. A noteworthy incident occurred when strong Russian infantry formations struck one depot area: "Surrounded bakery companies, dug in around their huge baking-ovens,"²⁴ held out for days while completely encircled.

Support units were not the only victims. It was not uncommon for division and corps headquarters to be attacked, and much effort and manpower was expended to protect these vulnerable units which were "potential front-line positions."²⁵ It is clear that Soviet conventional and partisan units, in accordance with the doctrine then in effect, sought to avoid contact with combat units in their effort to extend destruction, disruption, and paralysis throughout the Wehrmacht's rear areas. These attacks, coupled with the ever-present threat of potential attacks, hindered German CS and CSS units as they attempted to fulfill their primary mission of supporting the combat units.

The last impact of nonlinear operations was psychological, and the psychological shock to the average German landsar was immense. The possibility of partisan attacks made a trip away from the front-line bunkers a period of worry rather than relaxation. Frequent guard duty drained strength and increased tension miles behind the FEBA. The sight of trucks and railroad cars damaged by mines was a common and sobering reminder of the war going on behind the front. The panzer and infantry soldiers were somewhat better prepared for combat from whichever quarter it came, since they expected trouble near the front. This was not true of German CS and CSS soldiers. The impact of attacks on supposedly safe rear units by Soviet tanks and infantry at the Klin bulge caused a rout of these units of the 3rd Panzer Group. "The entire supply train...was streaming back in wild flight. Supply units were in the grips of a psychosis, almost of panic...."²⁶ In another incident, "VI Army Corps rushed 120 men into line--drivers, cooks, bootmakers, and tailors.....Fine men, but wholly inexperienced in this kind of fighting." When the Russian infantry assaulted, it "was too much for the nerves of the men of the supply services. They simply took to their heels. They were picked off one by one like rabbits."²⁷

The Germans faced the problem described by re-orienting the training of the support units. "Every soldier in a headquarters or service unit and in rear installations received combat training with emphasis on proficiency in the

use of antitank weapons in close combat."²⁸ The soldiers were conditioned to accept the fact that they would become part-time "supporters" and part-time fighters. During periods of extreme peril for German units, "all service forces were employed in combat, troops of other arms suddenly becoming infantrymen."²⁹ The changes in training and mental conditioning did achieve success. "In 1943, for instance, in Zolochiv (near Kharkov), a divisional bakery company stopped Russian tank units which had broken through, destroyed several tanks, and forced the remaining ones to turn about."³⁰

U.S. ARMY DOCTRINE

The U. S. Army's process of responding to the likelihood and dangers of nonlinear operations began to produce the first necessary doctrinal changes in the mid-'70's. With the publication of a revision of FM 100-5 in 1982, the Army described the modern battlefield in terms recognizable today. In the 1986 edition of FM 100-5, one finds a description of nonlinear operations which is a clear recognition of the relevant Russian doctrine, a broad statement of the methods by which U.S. units must conduct nonlinear operations, and an implicit statement of the

training requirements. Under the heading of "High- and Mid-Intensity Conflict", one reads that

even in conventional combat, operations will rarely maintain a linear character. ...the intermingling of opposing forces [will be] nearly inevitable. [The blurring of] the distinction between front and rear...will impose a requirement for all around defense and self-sufficiency on all units.....Throughout the battle area, attack and defense will take place simultaneously as each combatant attempts to mass, economize locally, and maneuver....Fluidity will also characterize operations in the rear of forward deployed committed forces....³¹

FC 71-100, Armored and Mechanized Division and Brigade Operations echoes FM 100-5 in its description of the battlefield: "Opposing forces on the next battlefield will rarely fight across orderly or distinct lines. Linear warfare could most often be a temporary condition, and distinctions between rear and forward areas will be difficult."³² Given that FC 71-100 clearly recognizes the existence and implications of nonlinear operations, it must be further examined for the "how to" specifics by which armored and mechanized divisions and brigades will conduct such operations in the high intensity scenario already postulated.

Chapter 6, "Defensive Operations", maintains doctrinal consistency, and states:

Commanders and planners recognize the likelihood of penetrations of the MBA (Main Battle Area) when they are fighting large, mobile forces.....When such penetrations occur, MBA forces continue to fight, protecting their own flanks, striking ³³at the enemy's, and reestablishing contact...when possible.

This is followed by only two other references to nonlinear operations in this chapter, when rear area combat operations are mentioned in general terms. The initial mention is: "Combat forces must be prepared for fluid counteroffensive operations--in essence, movements to contact--in the rear area."³⁴ The second quotation is extremely pertinent: "Support units train and prepare for self-defense including the defense against armored forces."³⁵ Pertinent, but not complete. One turns to Chapter 11, "Combat Service Support", with hope of finding a fuller treatment of nonlinear operations.

In addressing CSS, FC 71-100 lists fully the support which men and machines need during combat. There is, however, nearly no realization of the impact which marauding tanks, BMPs, airborne, airmobile, and special purpose forces can have on CSS units. One statement apparently suffices:

The division commander will seldom have combat units available to provide for protection of [CSS] units. So the DISCOM commander must make provisions to provide for rear area protection from his own units....Because [LOCs] are vulnerable...in some cases [to] enemy ground units operating in the division area, supplies or support teams dispatched may not always arrive.³⁶

This indicates an awareness of the probable impact of enemy units crossing the rear area and ambushing LOCs. What are not addressed are the specific methods by which the CSS units will deliver supplies when there is no armored convoy escort available from brigades in contact at the FLOT. Even if enemy action does not directly cut the flow of supplies,

how many truck drivers will be able to navigate correctly across a confusing battlefield which has friendly and enemy units of all types laid out like a patchwork quilt? Given the necessity for our less-than-mobile CSS units to stock much of their ammunition and POL on the ground, how quickly will they be able to relocate extensive dumps to avoid losing them in a fluid battle? These points are not addressed in FC 71-100.

Chapter 4, "Rear Area Operations", provides a fuller treatment of nonlinear operations. To support friendly offensive and defensive operations,

it is essential that [CS] and [CSS] activities performed in rear areas continue without interruption. Therefore, [CS] and [CSS] units must be able to defend themselves against attempts to disrupt their operations and, if necessary, gain time until reinforcements arrive.³⁷

Following this is an excellent appreciation of Soviet doctrine which

stresses...fast-moving breakthroughs into the rear area to attack and destroy...support facilities. The enemy objectives are to disrupt the ...rear area operations...and to hinder the reconstitution of depleted units. Targets in the rear area include...nuclear supply and delivery facilities, command and control centers, communications networks, supply facilities, airfields, and reserve echelons. These targets may be attacked...in division or brigade rear areas in what appears to be independent operations but are actually closely coordinated with the initiatives of maneuvering enemy forces.³⁸

What follows is a discussion of rear area protection operations, which is the Army doctrinal term for the methods it believes can lessen the impact of Soviet nonlinear operations on the support units located in what used to be "the rear." "The rear area battlefield begins at the rear

of the main battle area and extends into the communications zone."³⁹

The rear area threat is divided into three levels of increasing potency: Level I includes agents, saboteurs, and terrorists; Level II contains Spetsnaz units and raids and ambushes of less than battalion strength; a Level III threat is battalion-sized or larger, and it may arrive by parachute, helicopter, or armored fighting vehicle. While stating that every unit must be able to protect itself against Level I threats, and must be able to delay Level II and III threats, it is acknowledged that "support units are not trained or equipped to conduct a sustained (no time given) defense against Level II or III attacks...."⁴⁰ The ensuing discussion of defensive measures encompasses the base and base cluster concepts, the existence of isolated (and hence very vulnerable) units, the role of the MPs and combat units, and the responsibilities of divisions and brigades for rear battle operations.

Specific tactics and training pointers are sorely lacking in FC 71-100. Although the threat is ably identified, and there is doctrinal conformity both internally and with FM 100-5, the document is lacking. It is difficult to recall some of the examples from the Great Patriotic War and convince oneself that the U.S. doctrine is, in practical terms, much ahead of the Wehrmacht before it began to suffer from Soviet nonlinear operations.

There is a much better explanation of the "how to's" of base defense and rear area protection in FM 90-14, Rear Battle. Fire support, communications, and command responsibilities are discussed in useful terms, and there is a statement which provides a useful transition from doctrine to training: "The base must be trained, equipped, and prepared to defend itself. When faced with a threat, the CS and CSS units must revert to a combat mission to survive."⁴¹ Are CS and CSS soldiers and units trained and equipped to defend themselves?

INDIVIDUAL TRAINING FOR THE U.S. SOLDIER

It has been established that the individual German soldier--on the gun line, in the signal center, or in a depot--initially was not trained or ready to fight Russian tanks, infantry, or partisans in the areas behind the FEBA and extending deep into the rear. Large-scale training during the war, which detracted from the mission of the affected units, was necessary to prepare the German soldier for the war he faced. The Wehrmacht's prewar doctrine did not foresee the substantial Soviet emphasis on nonlinear operations. U.S. doctrine recognizes the Soviet threat and U.S. manuals call for training now to avoid the fate of the Wehrmacht. One author has written: "Every soldier must know

the pressures which he faces in action, and how to control his fears."⁴² Do U.S. Army Basic Combat Training (BCT) and Advanced Individual Training (AIT) introduce our soldiers to the pressures they will face on a nonlinear battlefield? Does the training prepare them to defeat the threat?

The training center at Ft. Jackson, S.C. conducts BCT for all CSS soldiers in the Army. The trainee learns to fire the M16A1 rifle, is introduced, barely, to the M60 machinegun, and receives a very brief exposure to the M72A1 Light Antitank Weapon (LAW), which does not include the firing of live rounds. There is no exposure to Soviet armored fighting vehicles. Combat-like situations are replicated on "combat indoctrination ranges" which use a base support area scenario. The enemy described to the trainees is a small enemy element which has been seen parachuting or air-landing in the vicinity of the base cluster. There is no contact with this enemy element, no presentation of the range of types of Soviet units which could attack the base cluster,⁴³ and no real tactical value. What trainee would conclude that his Army takes this threat seriously?

AIT is conducted at Ft. Jackson for wheeled-vehicle mechanics, cooks, and some administrative specialists. In the "tactical" training conducted in the field, the instructors utilize a base cluster defense scenario in which an ordnance "battalion", an administrative unit, and a quartermaster "battalion" of the "54th Infantry Division

(Mechanized)" are in a simulated combat environment. The soldiers are not required to defend against a ground attack, and the threat is again described to them as the "small airborne element" they didn't have to fight in BCT. There is no exposure to simulated artillery fire, air attack, or attacking armor. Local patrolling on a series of lanes is tested, but only the use of the rifle and one antipersonnel mine is involved.⁴⁴

The training described above does not meet even the lowest standards required to train soldiers adequately for defending themselves on the modern battlefield. What graduates of this training would be sufficiently familiar with the weapons and tactics needed to kill armor in the way that the German bakery company did near Kharkov? Such training would not have been adequate in 1943. It is even less adequate today when the Soviets have perfected their doctrine and joined to it the power of armored, motorized, and airborne units which are capable of executing the doctrine throughout the rear areas of U.S. units.

UNIT TRAINING IN THE U.S. ARMY

In seeking to determine if the training for U.S. units is relevant to the predicted nonlinear nature of the modern battlefield, one turns to the publications of the Army Training and Evaluation Program (ARTEP). Five ARTEPs were selected as being exemplars of the types of units which are

likely to be exposed to Soviet combat forces conducting nonlinear operations. They are:

6-300, for corps, division, and brigade artillery

43-6, for light and heavy maintenance companies

9-550, for a missile maintenance company

11-305, for a command operations signal battalion

55-118, for a terminal transfer company.

In authoritative and thorough fashion, the ARTEPs detail the Soviet threat to these rear area units and state the Army doctrinal position that they must be capable of self-defense. There is recognition that mere awareness "of the threat is of no value unless commanders in all echelons train their personnel to survive in combat conditions while completing their designed mission."⁴⁵ The ARTEPs contain tasks applicable in time of war: preparing a base defense plan, patrolling for an enemy unit known to be in the vicinity, reacting to sniper fire, reacting to a convoy ambush, adjusting artillery fire and an air strike, and recognizing armored vehicles. However, there are two common flaws in the ARTEPs: the level of the threat is always low in comparison to German experiences in Russia, and the "enemy" is never allowed to press home the attack. The prize task is in ARTEP 55-118: The task of defending a convoy ambushed by armored vehicles is judged by the standard of correctly identifying the attackers!⁵² This will not be sufficient in an actual engagement. Correct use of M72 LAWS by armor-killer teams would be a more

appropriate standard, in consonance with the doctrinal requirement of self-defense by CS and CSS units.

While these ARTEPs contain much accurate information on the threat facing CS and CSS units, they do not demand of the tested units the degree of tactical proficiency which was necessary for survival, let alone mission accomplishment, on the Ostfront. And those commanders who attempt on their own to redress these deficiencies will run into an ironic roadblock: In most instances, there are no TOW and DRAGON weapons with which to practice, and the tables of authorization which allocate training ammunition to CS and CSS units deprive them of realistic quantities of even blank ammunition. Such is the true perception of the threat in the ARTEPs.

CONCLUSION

The U.S. Army does not train or psychologically condition its soldiers for operations on a nonlinear battlefield, nor does it demand that its units train to realistic standards for this same battlefield.

There is adequate doctrine in place. The danger of the Soviet doctrinal desire and capability to fracture a coherent defense by bypassing combat units and striking throughout the vulnerable rear areas of U.S. divisions and

corps has been recognized, although some key manuals lack the proper emphasis. There is no mention of the difficulties of the specifics of training for and fighting in a battle in which the enemy can attack an artillery battery from the rear, or overrun a signal relay site, or throw a tank company against an ammunition storage point. It cannot be denied that there are serious force structure and weapons and equipment gaps in the Army. More importantly, there is a grave mismatch between doctrine and the training required to implement the doctrine on the battlefield. Individual training does not realistically inform the soldier about what he can expect, and does not train him in the use of the required weapons, particularly antitank weapons. The threats portrayed in the ARTEPs convey an image that is totally out of consonance with the German experiences in Russia and with FM 100-5, FC 71-100, FM 63-20, and FM 90-14. Training is the key to reducing a soldier's fear of the terrors of the battlefield. Training is the key to creating soldiers and units which can operate when bypassed and surrounded, which can accomplish their designed missions even when they are intermingled with the enemy, which will not suffer the travails of so many German soldiers and units. Doctrine by itself, even if perfect, is not sufficient.

SOME RECOMMENDATIONS

Correction of the failings of individual and unit training identified above should begin with the POI's of the officer (basic and advanced) and NCO courses of the CS and CSS branches of the Army. Correction should begin here because this will lead to better unit training more quickly, but more importantly, because it will impart to the leaders and trainers the realization that their units will have to fight to survive and work on a nonlinear battlefield. A realistic presentation of the enemy threat to CS and CSS units is needed. It should be based on current Soviet doctrine and the experiences of Wehrmacht units on the Russian front. Classroom and field problems which require the student officers and NCO's to position their assets tactically and to react to enemy ground and air attacks should be included in the curricula, as should range firing (not mere familiarization firing) of the M72 LAW, the M67 DRAGON, various antitank and antipersonnel mines, the M60 machine gun, and the M16. Since these officers and NCO's will be their units' trainers, their weapons training should approximate that of infantry officers and NCO's.

The BCT and AIT training programs should correspondingly be improved and stiffened. Trainees should be given a realistic threat briefing accompanied by a display of enemy weapons and vehicles. They need more training on small arms, land mines, antitank weapons,

tactics, and land navigation. The last subject is especially important given the dispersion of friendly units on the battlefield, the likely need to move support units on secondary roads, and the intermingling of friendly and enemy units.

In CS and CSS units, more training time must be allocated to tactical and weapons training, and the training must be realistic. This statement will no doubt evoke a howl of protest from many dedicated, hard-working CS and CSS soldiers who will point out that their units are fully occupied with supporting the combat units and each other, and that extra training time isn't available. The first response is that these units have no choice but to find the time to improve their self-defense capabilities. Of what use is a CSS unit which provides wonderful support in garrison but which will be destroyed easily in a combat zone? The second response is that realistic training needn't take more time than unrealistic training, which is wasted training time anyway.

The ARTEPs for CS and CSS units must be modified to reflect the correct image of the nonlinear battlefield. Most importantly, the threat level must be raised. Attacks by dismounted squads and snipers must be supplemented by attacks by tank companies. Next, the standards of grading the tasks must be greatly raised. The mere identification of enemy AFVs must be replaced by the "destruction" of enemy AFVs through the use of mines,

adjusted artillery fire, adjusted air strikes, and DRAGONS and LAWS. More value in grading must be given to tactical considerations, such as positioning a CSS asset more for its ability to remain undetected or to defend itself than for its rapid access to the supported units. New ARTEP tasks could be added for some units. For example, the heavy maintenance company has a section which can repair tank turrets. It is conceivable that recently repaired tanks will be at a maintenance site when an enemy attacks. Why not train the turret mechanics in the basic fire control procedures of the tanks they repair, and make this part of an ARTEP scenario? It is better to lose this equipment while fighting than to abandon it, and the workshops, for lack of training. The same is true for "float" tanks and replacement Bradleys, and for artillery pieces which can be used in the direct fire mode with some training.

In addition to the ARTEPs, the National Training Center (NTC) provides a realistic training ground for CS and CSS units. While an NTC for these units alone is not feasible or desirable, the battleground at the NTC could be made deeper so as to accommodate more CS and CSS elements behind the MBA, and a more capable aggressor force (with airmobile units, for example) could be created so as to challenge the "rear" units in the same way that the combat units are challenged.

In order to assist TRADOC and the concerned units to conduct training properly and especially to inculcate the correct mental toughness required for nonlinear operations, it is recommended that a "lessons learned" type pamphlet be published. This pamphlet would give relevant examples from the Wehrmacht's ordeal in the Soviet Union, plus the experiences of U.S. units at the NTC or on ARTEPs, plus tips from other armies on how they have addressed the problems common to all armies which face Soviet-style enemies.

There are certain TOE changes which are required to gain the full benefit of the training changes recommended. A major suggestion for change has been the formation of hybrid units as envisioned in the ARMY 21 concept paper and the "Maneuver Oriented Corps 96" proposal. Both of these concepts foresee a return to self-contained units which combine combat, CS, and CSS units within the same completely mobile formation. More mundanely, additional crew-served weapons (M19, M249, M60) must be added to all CS and CSS units to counter both ground and air attacks. More training ammunition of all types must be added to the tables of authorization of these units. More FM radios must be provided to enable the units to establish observation posts, conduct patrolling, and summon help. Dedicated STINGER teams must be added to all CS and CSS units. The value of these support assets must be preserved from aerial destruction by soldiers who are first and last STINGER operators. For the

same reason, dedicated DRAGON gunners should be added to selected support units.

While these recommended corrections are neither perfect nor exhaustive, they are proffered in the belief that if the Army accepts the conclusions of this paper, it will accept also the moral responsibility of correctly training its soldiers to win on the nonlinear battlefield.

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4. FM 100-2-1, The Soviet Army: Operations and Tactics (HQDA, Washington, D.C., 16 July 1984) p.2-4.
5. Ibid., p.2-4.
6. Savkin, V. Ye., Colonel, "Features of Modern Combat," Voyennyy Vestnik (Military Herald) No. 3, 1974, pp. 24-28.
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9. Carell, Paul, Hitler Moves East 1941-1943 (New York: Bantam Books, 1965) p.348.
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17. Carel, op.cit., p.348.
18. Ibid., p.369.
19. Ibid., p.405.
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21. Ibid., p.34.
22. Ibid., p.7.
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24. Ibid., p.397.
25. Ibid., p.407.
26. Ibid., p.339.
27. Ibid., p.405.
28. DA Pam No. 20-233, German Defense Tactics Against Russian Breakthroughs (HQDA, Washington, D.C., October 1951) p. 34.
29. Ibid., p.21.
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31. FM 100-5, op.cit., pp.2-3.
32. FC 71-100, Armored and Mechanized Division and Brigade Operations (U.S. Army Command and General Staff College, Ft. Leavenworth, KS., May 1984) p. 1-17
33. Ibid., pp.6-29, 6-30.
34. Ibid., p.6-44.

35. Ibid.
36. Ibid., p.11-36.
37. Ibid., p.4-129.
38. Ibid., p.4-130.
39. FM 63-20, Forward Support Battalion (HQDA, Washington, D.C. 17 May 1985) p.3-2.
40. FC 71-100, op.cit., p.4-131.
41. FM 90-14, Rear Battle (HQDA,, Washington, D.C., 10 June 1985) p. 2-3.
42. Dinter, Elmar, Hero or Coward: Pressures Facing the Soldier in Battle (London: Frank Cass and Company Limited, 1985) p.110.
43. Telephone conversation with CPT John Curtis, S3, Training Command, Ft. Jackson, S.C., 26 NOV 1986.
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